PROJECT WORK PLAN
REMEDIAL INVESTIGATION/FEASIBILITY STUDY
General Electric - Fort Edward Plant
Operable Unit No. 5
(Site No.: 5-58-004)
Fort Edward, Washington County, New York

Prepared for

New York State Department of Environmental Conservation

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Section 1
Introduction

This Work Plan for the General Electric (GE) Fort Edward (FE) Site - Operable Unit 05 (herein identified as the "Site") was prepared by Camp Dresser & McKee (CDM) for the New York State Department of Environmental Conservation (NYSDEC) under the Engineering Services for Design and Construction Oversight, Standby Contract No. D004437. The Work Plan was developed in accordance with the "*Standby Contract Work Assignment No. D004437-13, General Electric - Fort Edward Plant Inactive Hazardous Waste Site No. 558004*".

The major focus of this work assignment (WA) is for a Remedial Investigation/ Feasibility Study (RI/FS) to be conducted in the vicinity of the former 004 outfall at the site to delineate the vertical and horizontal nature and extent of non-aqueous phase liquid (NAPL) with high concentrations of polychlorinated biphenyls (PCBs) in the bedrock.

This Work Plan is comprised of the following sections and subsection:

- **Section 1-Introduction**

  This section presents a brief site description and history, the location, operational and remedial history, and the project objectives.

- **Section 2-Scope of Work**

  This section presents a detailed breakdown of the scope of work for the following major tasks associated with this WA:

  - Task 1 - Project Scoping Plan/Work Plan Development and RI/FS work plan
  - Task 2 - Remedial Investigation
  - Task 3 - Remedial Investigation Report
  - Task 4 - Feasibility Study

- **Section 3-Project Schedule**

  A detailed project schedule for the performance of the above tasks is presented in this section.

- **Section 4-Budget Estimate**

  A detailed WA budget is presented in Appendix B, the project Schedule 2.11s, itemized by tasks and sub-tasks in accordance with the CDM's budget reporting requirements, cost rates and factors contained in the base contract.

- **Section 5-Staffing Plan**

  The staffing plan identifies the roles and responsibilities of the CDM project team. CDM has assembled a team of environmental engineers and scientists experienced with conducting remediation investigation in bedrock and developing remedial alternatives.

- **Section 6-Subcontracting**

  This section identifies the services provided by CDM subcontractors including the name and location of each proposed subcontractor under this WA.

- **Section 7- MBE/WBE Utilization Plan**

  The Minority Business Enterprise (MBE) and Woman Business Enterprise (WBE) Utilization Plan is presented in this section. CDM's subcontractors have been selected to provide quality and cost-effective services while also making a good faith effort to achieve the contract-specific MBE/WBE utilization goals.

The following appendices are also included in this Work Plan:

- **Appendix A - Health and Safety Plan**

  The site specific Health and Safety Plan (HASP) presented in Appendix A specifies the health and safety procedures to ensure safe work practices are employed through the length of the project. CDM has submitted our Corporate Health and Safety Program Manual to NYSDEC under separate cover.

- **Appendix B - Schedule 2.11**

  The Schedule 2.11s presented in Appendix B contains a detailed cost estimate by task and subtask of all work elements contained in this work assignment.

- **Appendix C - Citizen Participation Plan**

  Appendix C contains individual quotes for drilling, laboratory and validation services to provide documentation for reasonable competitive costs.

- **Appendix E - M/WBE-EEO Work Plan**

1.1 Site Information

The following subsections describe the GE FE site and provide a brief overview of the operational history. The Site is 32-acres in size and located on the east bank of the Hudson River in the Town of Fort Edward, Washington County. There are seven

permanent building on the Site including the main manufacturing building comprised of several joined structures constructed over 25-years ago.

Operable Unit 03 (OU-03) consists of the main portion of the site, including the contaminated groundwater and soil, and PCB NAPL beneath the facility. OU-04 consists of the area of contaminated soils and sediment adjacent to the former 004 outfall on the eastern shore of the Hudson River. This area consists of approximately 1,350-feet of shoreline at the base of a steep bank and is the area intended for investigation under this work assignment.

In 1942, the main building was constructed as an aircraft turret plant. From 1942 to 1946, the building was leased to GE and used to manufacture selsyn motors used in aircraft turrets. From 1946 to present, GE used the Site to manufacture industrial capacitors and the operations included aluminum rolling, tin plating, polypropylene film manufacture and refining and blending of capacitor dielectric fluids. Prior to 1977, the capacitor dielectric fluids used by GE contained PCB's that included Aroclor 1254, 1242 and 1016. Until 1976, untreated industrial wastewater was discharged to the Hudson River via the 004 outfall. Use of PCB containing material ceased in 1977.

1.2 Site Description

The main focus of this work assignment is to delineate the extent of PCB/NAPL contamination in the Former 004 outfall area. An IRM was conducted in this area in the mid-1990s by previous investigators. As part of the OU-04 remedial action, groundwater monitoring wells were installed, sediments from the river bottom adjacent to the outfall were removed, and disposed of and the talus pile that was once present at the base of a steep grade along the former outfall route was removed to the degree practical. Excavation of the talus pile created, in part, a narrow strip of level terrain that currently exists between the river and the former outfall area. This area has been re-engineered/regraded with stone so that it is presently accessible for investigation purposes.

During the course of the OU-4 remedy, NYSDEC installed a trench system which has since been backfilled with porous material and a product recovery system. The intent of this trench system was to intercept any NAPL that might otherwise migrate into the adjacent river. Jersey barriers were installed to support the stone placed along the shoreline. At NYSDEC's request, CDM will investigate and evaluate this system.

The former 004 outfall area is reported to have been at or below the surface of the river up until the 1970's. A dam formerly located downstream of the 004 outfall was taken out of service due to its dilapidated condition. The subsequent lowering of the river water levels exposed several areas of sediment that had accumulated while the dam was in place. These sediments were found to contain high levels of PCBs and are known as "remnant sites". These PCB contaminated sediments were covered by GE under Order by USEPA using claymax covers. A venting system was also installed at each remnant site to vent gases from decomposing organic matter that had accumulated with the contaminated sediments. Two remnant sites exist just downstream of the 004 Outfall area, each one encompassing and area of 5 to 10 acres.

At the location of the former 004 outfall, highly fractured and weathered bedrock from the Snake Hill Shale formation is evident. The fractured and porous nature of the rock lends itself to the development of groundwater seeps that were observed during two recent site visits in May and June 2007. The formation creates an almost vertical wall that extends from the river bank approximately 120 feet up to the crest of the cliff above.

1.3 Remedial History

The following provides a brief summary of the remedial history at the Site. All information used in the development of the site history was provided by NYSDEC.

In 1976, a settlement was reached between GE and NYSDEC under which GE is obligated to implement a PCB abatement program at the Fort Edward and Hudson Falls plants. The abatement program was intended to eliminate PCB discharges to the environment. In 1980, the Fort Edward plant was listed on the Registry of Inactive Hazardous Waste Disposal Sites in New York.

In 1982, contamination was found in private homeowner wells in the vicinity of the Site. These finding provided the impetus for the first RI/FS program investigating GE FE as a potential source of contamination. A shallow groundwater recovery well was installed in 1983 to treat a plume of volatile organic compounds (VOCs) and a potable water supply line was installed to nearby homes with contaminated private wells.

In 1985, the first Consent Order was issued on GE FE to address completion of the RI/FS programs on-site and off-site and to address remedy implementation based upon the findings of the RI/FS. The recovery and treatment of off-site shallow bedrock groundwater was initiated in 1988. PCB contaminated soil was excavated and removed from the site in 1990.

In 1991, on-site shallow recovery wells were installed for overburden groundwater recovery and treatment by air stripping. From 1992 through 1996, several upgrades were made to the industrial wastewater treatment plant.

Investigation of the 004 outfall discharge area between 1992 and 1994 indicated a significant release of PCB may be occurring from the contaminated soils and sediments in that area. An Order on GE's consent was issued in 1993. The Order required GE to implement interim remedial measures related to PCB releases from the 004 outfall and required investigation of the 004 outfall area. From 1994 to 1996, PCB contaminated soils and the former 004 outfall pipe were removed form the area east of the Allen Street to the top of the cliff at the Hudson River.

OUs 03 and 04 are the result of ongoing monitoring associated with the GE FE site and the Hudson River. Reviews conducted in 1994 of the performance of the remedial programs for the OUs 01 and 02, along with the discovery of additional sources of contamination not identified in the original RI/FS for the site, resulted in the issuance of two Orders on Consent by the NYSDEC which address the additional investigation in the vicinity of the manufacturing building at the site (OU-03) and

additional investigation at, and Interim Remedial Measures (IRMs), in the vicinity of the former 004 Outfall which conveyed wastewater from the site to the Hudson River.

Section 2
Scope of Work

The scope of work for the General Electric Fort Edward Site (GE FE) work assignment is divided into four tasks as follows

- Task 1 - Work Plan Development
- Task 2 - Remedial Investigation (RI)
- Task 3 - Remedial Investigation Report (RIR)
- Task 4 - Feasibility Study (FS)

The overall goal of the work assignment at GE FE Outfall 004 area is to review existing information and data and conduct a remedial investigation to define the vertical and horizontal nature and extent of NAPL with high concentrations of PCBs in the bedrock. The RI will involve bedrock core sampling, the installation of new monitoring wells, aquifer testing, field screening using fluorescence test methods or field GC/MS analyses, and sampling of groundwater, surface water and biota. In addition, CDM will also evaluate the existing underdrain collection system installed during the sediment removal along the inside of the jersey barriers. The overall approach used in determining the nature and extent of NAPL will be one which incorporates the flexibility to change or adapt to information generated by real-time or near real-time measurement technologies. As information is gathered, it will used to make decisions about what subsequent activities will best resolve remaining data and decision uncertainties.

CDM will prepare an RI report that summarizes the results of the field work and a FS that will develop, screen, analyze and recommend a remedial alterative for the GE FE 004 outfall area.

The following provides additional details for each task.

2.1 Task 1 - Work Plan Development

2.1.1 Task 1A – Project Scoping Plan

The draft Project Scoping Plan for the GE Fort Edward Plant Inactive Hazardous Waste Site was prepared and submitted to NYSDEC for review and discussion. The scoping plan was prepared based on the review of the following documents:

- *The Groundwater Resources of Washington County, New York*, prepared by NYSDEC Water Power and Control Division, dated 1953
- Subsurface Investigation, Former Outfall 004 Pipeline Summary Report, prepared by O'Brien & Gere Engineers, Inc., dated August 1995

- *Work Plan, Former Outfall 004 Pipeline Interim Remedial Measure*, prepared by O'Brien & Gere Engineers, Inc., dated August 1995

- Final Technical Memorandum, Fort Edward Facility Outfall 004 Sediment Investigation and Shoreline Protection IRM, prepared by O'Brien & Gere Engineers, Inc., dated November 1995

- *Former Outfall 004 Pipeline Interim Remedial Measure*, prepared by O'Brien & Gere Engineers, Inc., dated July 1996

- Record of Decision GE Fort Edward Plant Site, Town of Fort Edward, Washington County, Site No. 5-58-004, Operable Units 3 and 4, prepared by NYSDEC, dated January 2000.

- *ROD for Hudson Fall*, prepared by NYSDEC, dated 2001

- Final General Electric Fort Edward Outfall 004 Site Remediation Certification Report, prepared by Ecology and Environment Engineering, P.C., dated November 2004

- Supplemental Remedial Investigation Summary Report Former 004 Outfall, prepared by GeoTrans, Inc., dated January 2007

Site visits were conducted with the NYSDEC project manager on May 24 and June 21, 2007 to observe the existing site conditions and review site history. The level of effort (LOE) and cost for each task will be defined in the Schedule 2.11s provided with the draft project work plan.

2.1.2 Task 1B – Work Plan

This work plan is an expansion of the scoping document and includes a description of all the major tasks and subtasks.

This project work plan includes a site specific Health and Safety Plan (HASP) presented in Appendix A, complete Schedule 2.11s in Appendix B, and Citizen Participation Plan (CPP) presented in Appendix C. CDM's Generic QAPP previously submitted to NYSDEC, has been updated to include those elements that will be utilized for the project and updated to include additional elements not specifically identified. A copy has been provided to the NYSDEC project manager under separate cover.

The QAPP presents the field activities that will be performed, defines the procedures and methods that will be used to collect field data including project samples, and focuses on the analytical methods and quality assurance/quality control (QA/QC) procedures that will be used to analyze project samples, ensure the data are of known and acceptable quality, and manage the resultant data. The HASP describes the site health and safety for the field activities that will be performed.

2.2 Task 2 - Remedial Investigation

The overall goal of the remedial investigation is to delineate the horizontal and vertical extent of NAPL contamination in the bedrock at the site. A secondary goal is to quantify the impacts of PCB releases from the site to the Hudson River in the vicinity of the site through water and biota sampling. New and existing wells will be used to define the NAPL plume to the extent possible given the site physical constraints. The following tasks identify the proposed field activities to achieve this goal. If additional delineation is needed, horizontal or vertical, CDM will consult with NYSDEC prior to installing more wells.

2.2.1 Task 2A –Groundwater Monitoring Well Installation

CDM proposes to install, at a minimum, nine bedrock monitoring wells at the locations identified on Figure 1 to delineate the NAPL identified in the bedrock. The wells will be continuously cored during drilling. A qualified field geologist experienced in logging and interpreting bedrock cores and in identifying NAPL will evaluate the cores in consultation with the on-site NYSDEC representative to determine the final depth of each sample and well. Wells will be drilled in a manner to allow groundwater screening for NAPL at increasing depth intervals and telescoping casing to prevent vertical migration of contamination during drilling.

Boreholes will be extended to the targeted depth or until clean material is reached, if possible. At each of the screened intervals, field testing including fluorescence test, will be performed to identify the presence of PCB containing NAPL at the interval. In addition, samples may be submitted for to the lab for 24-hour turnaround time to obtain quantitative PCB data. Once the vertical extent of the NAPL is delineated, additional wells will be installed for the purpose of horizontal delineation. Initially, the following nine wells are proposed:

Well ID	Location	Rationale
MW-4D	Adjacent to existing MW-4	Vertical delineation; estimated depth 20 feet into bedrock
MW-1D2	At MW-1, -1D cluster	Vertical delineation: PCB concentrations in the cluster increase with depth (162,000 µg/L observed in MW-1D); estimated depth 50 feet into bedrock
MW-2D2	At MW-2, -2D cluster	Vertical delineation: PCB concentrations in the cluster increase with depth (27,000,000 µg/L observed in MW-2D); estimated depth 50 feet into bedrock
MW-3D2	At MW-3/3D cluster	Vertical delineation; estimated depth 50 feet into bedrock
MW-7D2	At Mw-7/7D cluster	Vertical delineation; estimated depth of 50-feet into bedrock
MW-9D	West of MW-2D along fracture orientation (N86E° striking fracture)	Horizontal delineation; estimated depth 20-feet into bedrock
MW-10D	Northwest of MW-2D along fracture orientation (N6E° striking fracture)	Horizontal delineation; estimated depth 20-feet into bedrock

MW-11D	East of MW-2D along fracture orientation (N86E° striking fracture) and pipeline	Horizontal delineation; estimated depth of 160-feet
MW-12D	South of MW-6, nearly along N12°E striking fracture	Horizontal delineation; estimated depth of 30 feet

Based on the field observations, additional wells may be installed to complete the delineation of the NAPL in the bedrock. The final locations and depths will be determined based upon the geologic information gathered during the bedrock coring program, field screening for NAPL, and other available information in consultation with the NYSDEC Project Manager. The wells will be completed as open borehole monitoring wells unless field conditions dictate otherwise.

CDM also notes that the proposed fluorescence testing may be a technique with limited reliability. Therefore, we have proposed an optional task for NYSDEC consideration and approval. CDM proposes to use a mobile vehicle mounted GC/MS gas chromatograph. The intent of this unit is to rapidly analyze core and water samples to screen for the presence of PCB's or PCB containing NAPL. The portable GC/MS results would be used to guide the future course of the delineation.

Field documentation and well installation procedures are provided in CDM's Generic QAPP provided to NYSDEC. Site specific field procedures, including the drilling, packer testing, and PCB field screening tests for this project will be provided as Attachment 2 to the generic QAPP.

2.2.2 Task 2B - Groundwater Sampling

Once all wells have been installed and developed, CDM will conduct groundwater sampling of new and existing wells. The first round of samples will be analyzed for VOCs (EPA Method 624), semi-volatile organic compounds (SVOCs) (EPA Method 625), target analyte list (TAL) metals (EPA Method 6010) and PCBs (EPA Method 608 or SW 846 Method 8082). Subsequent rounds will be analyzed for PCBs only, unless available data indicate additional VOC, SVOC or metals analyses are appropriate upon consultation with NYSDEC. CDM has assumed three additional rounds of quarterly groundwater sampling will be conducted under this work assignment. Prior to sampling, depth to water measurements will be collected from the wells using an interface probe. Three well volumes will be purged prior to sampling.

If NAPL is encountered on the groundwater surface in a well, a groundwater sample will not be collected from the well. Instead, a representative sample of the NAPL will be collected during the field activities. The sample(s) will be submitted to an analytical laboratory to determine the properties and constituents of the NAPL as directed by NYSDEC. Laboratory analysis will include Aroclors, density, and VOC fingerprint.

Final determination of well purging and sampling protocols will be developed in consultation with NYSDEC. During purging, pH, temperature, conductivity, oxidation-reduction potential (ORP), dissolved oxygen, and turbidity will be measured.

All samples will be analyzed by an Environmental Laboratory Accreditation Program (ELAP) certified laboratory. A NYSDEC Analytical Services Protocol (ASP) Category B data deliverable will be provided for these analyses.

2.2.3 Task 2C - Surface Water/Seep and Fish and Biota Sampling

2.2.3.1 Surface Water/Seep Sampling

CDM will collect surface water samples from three locations in the Hudson River; one situated at the location of the former 004 outfall and one at locations upstream and downstream of the outfall. Samples will be collected in two separate sampling events; one under low water flow conditions (before the increase in river stage due to upstream hydropower operations) and one during the higher river stage. Each sampling location will be pre-approved by the NYSDEC project manager. Surface water will be collected directly into the appropriate sample containers and submitted for PCBs analysis only. The intent of this sampling is to determine whether PCB's from the outfall area are prone to migration as a result of bank storage and discharge due to river stage fluctuations.

Seep areas from the fractures zones along the rock face as well as from seeps that are reported to be observable between the 'jersey barriers' at low flow conditions, will be sampled where flow and location-specific characteristics allow a discreet sample to be collected, specifically, where seep water flows with a volume sufficient to permit sample collection directly into the appropriate container and meet analytical requirements. It is anticipated that no more than ten seep samples will be collected and analyzed for PCBs only.

2.2.3.2 Biota Sampling

Biota sampling consists of fish and benthic macro-invertebrate sampling and are discussed in detail below

Fish sampling

Fish samples will be collected from an adequate number of locations in order to characterize and address project objectives, or as directed by the NYSDEC. Samples will be collected using site-specific common fishery techniques (e.g., seine net, electro-shocking, etc.). During the investigation, species representative of the site or individual location (i.e., dominant taxa, high percentage of total biomass, etc.) will be targeted for analysis. The age and/or trophic level of species and other pertinent sampling design information will be decided after consultation with the NYSDEC. CDM will attempt to reproduce fish sampling activities, procedures and protocols conducted by the NYSDEC during previous investigations.

Upon capture, sampling crews will taxonomically identify fish retained for analysis and record the weight and total length of representative individuals. In order to satisfy analytical requirements, it may be necessary in specific cases (e.g., minnow species) to composite samples consisting of an individual species. When required, the total number of individuals and total weight of the composite will be noted.

After processing, individual samples will be wrapped in aluminum foil, placed in re-sealable plastic bags and placed on wet or dry ice. Samples will be shipped via overnight delivery to the subcontracted analytical laboratory for PCB analyses.

Benthic Macro-invertebrate Sampling

Benthic macro-invertebrate (benthos) samples will be collected from an adequate number of locations in order to characterize and address project objectives, or as directed by the NYSDEC. Samples will be collected using site-specific sampling techniques (e.g., kick net, surber sampler, etc.). During each investigation, species representative of the site or individual location (i.e., dominant taxa, high percentage of total biomass, etc.) will be targeted for analysis. Pertinent sampling design information (e.g., sample size, etc.) will be decided after consultation with the NYSDEC.

As samples are collected they will be placed into a clean sample vessel (e.g., stainless steal bucket, high density polyethylene bucket, etc.) for sorting. Representative species retained for analysis will be taxonomically identified to order. Due to analytical requirements, all samples will consist of a given number of individuals composite together until the proper sample mass is achieved.

After processing, individual samples will be placed into the appropriate sample container, placed in re-sealable plastic bags and placed on wet ice or dry ice. Samples will be shipped via overnight delivery to the subcontracted analytical laboratory for PCB analyses.

2.2.4 Task 2D - Hydrogeologic Testing

An 8-inch diameter aquifer test well (ATW-1) will be installed in the bedrock at the site for the purpose of conducting a 72-hour aquifer test. Aquifer testing will be conducted at the new well to evaluate the pumping influence of the well and the ability to draw product into the well by pumping. The testing will be used to determine the feasibility of removing product from the bedrock by pumping from the bedrock wells. Existing wells will be monitored for influence using data loggers.

CDM assumes (for the purposes of cost estimation only) that all water extracted during the proposed aquifer test can be discharged to the GE Fort Edward industrial wastewater treatment plant. As such, costs for water, storage, transportation, and disposal have not been included here.

2.2.5 Task 2E - Evaluation of Underdrain Collection System

CDM will evaluate the underdrain collection system along the jersey barriers that was installed during the removal action. The absorbent booms will be removed by a remedial contractor and placed in drums for proper disposal. CDM will gauge the stand pipes with an interface probe to determine if NAPL is present. Based on conversations with NYSDEC, CDM is assuming that these will need to be pumped out and the waste disposed of at an approved facility.

2.2.6 Task 2F – Surveying

CDM will subcontract a licensed surveyor to survey the new monitoring wells, aquifer test well, surface water and biota sample locations. CDM will use GPS to locate the surface water and biota samples and provide this information to the surveyor for incorporation into the drawings. CDM assumes that NYSDEC will provide CDM with an AutoCAD version of the existing site map on which the newly surveyed points will be added.

2.2.7 Optional Task: Portable GC/MS

CDM proposes an optional task of employing the services of a mobile GC/MS laboratory technician should it be determined that more conventional methods of determining the presence of PCB/NAPL are unreliable. CDM proposes that AccuScience Inc, of Philadelphia, PA be employed for this task.

Costs for these services range to $1,100 per day. Costs for these services can be added to the work plan budget at the request of NYSDEC.

2.3 Task 3 - Remedial Investigation Report

All samples collected will be validated in accordance with NYSDEC Data Usability Summary Report (DUSR) guidance by a party that is independent of the laboratory which performed the analyses and CDM. A usability analysis will be conducted by a qualified data validator and a DUSR will be submitted to the NYSDEC. CDM will prepare an RI report containing at a minimum:

- Site Background/Historical Information
- Field Investigation
- Physical Characteristics (geology, hydrogeology, etc.)
- Summary of Results
- Environmental Fate and Transport (as necessary)
- Qualitative Risk Assessment (human and fish and wildlife)
- Conclusions and Recommendations

A summary of the RI field activities and all information and data gathered, as well as interpretations of that data will be included in the RI Report. State Standards, Criteria, and Guidance Values (SCGs) will be developed and utilized to screen the RI data to determine contaminant exceedances. A comparison of contaminant concentrations in environmental medial with typical background levels will also be performed.

A qualitative risk assessment will be prepared and assess the potential adverse human health impacts due to exposure to the contaminants of concern in environmental media (i.e., surface water, groundwater and biota) associated with site in the absence of any actions to control or mitigate these release.

The physical component of the site and the exposure pathways by which site-related constituents may reach human exposure points under the current land-use and future land-use scenarios will be presented. Each exposure pathway will be evaluated for the following four criteria necessary to indicate a complete potential exposure of a population:

- A contaminant source;
- An environmental medium fate and transport;
- A point of potential exposure;
- A route of potential exposure; and
- A receptor population.

Conceptual site models will be developed to aid in identifying potentially exposed populations and exposure pathways to environmental media. After complete exposure pathways are identified, the adverse health effects of the constituents of concern via identified complete exposure pathways under the current land-use and future land-use conditions will be discussed and presented in this section.

A fish and wildlife impact analysis (FWIA) will also be performed to identify actual or potential impacts to resources from site contaminants of ecological concern. The FWRIA will be performed in accordance with DER-10 guidance.

2.4 Task 4 - Feasibility Study

Following the implementation of the Remedial Investigation, CDM will conduct a feasibility study (FS) to evaluate remedial action alternatives using the data collected during the RI and all information available and necessary to screen technologies, develop and screen remedial alternatives, perform a detail analysis of remedial alternatives and select a feasible remedy at the site.

CDM will submit an FS Report to the NYSDEC that contains the following:

- Summary of remedial action goals, objectives and criteria

- Identification of any site-specific cleanup levels developed, if required
- Identification of general response actions
- Identification and screening of remedial technologies
- Remedial alternatives development and description
- Detailed analysis of remedial alternatives
- Recommended remedy

The screening of remedial alternatives will be performed in accordance with DER-10, using the criteria of effectiveness, feasibility, and cost. A revised list of alternatives that pass the screening criteria will be presented to NYSDEC and a final list prepared for detailed analysis. The detailed analysis of alternatives will be performed utilizing the following criteria in accordance with DER-10:

- Overall protection of human health and the environment
- Compliance with Standards, Criteria and Guidance (SCGs)
- Long-term Effectiveness and permanence
- Reduction of toxicity, mobility and volume
- Short-term effectiveness
- Implementability
- Cost

The technical feasibility considerations will include the careful study of any problems that may prevent a remedial alternative from mitigating site problems. Therefore, the site characteristics from the RI will be kept in mind as the technical feasibility of the alternative is studied. Specific items to be addressed will be reliability (operation over time), safety, operation and maintenance, ease with which the alternative can be implemented, and time needed for implementation.

The draft FS report will be prepared to: 1) summarize the activities performed and 2) present the results and associated conclusions for Tasks 1 through 4. The FS report format will consist of, at a minimum, the following sections:

1. Executive Summary
2. Purpose
3. Site Description and History

4. Summary of Remedial Investigation and Exposure/Risk Assessment
5. Remedial Goals and Remedial Action Objectives
6. General Response Actions
7. Identification and Screening of Technologies
8. Development and Analysis of Alternatives
9. Recommended Remedy

CDM will prepare an FS report that contains all the information above and provides a recommended remedy meeting the criteria outlined. The report will also contain a conceptual plan to implement the selected remedy.

Section 3
Preliminary Project Schedule

The following tabulation provides the proposed project schedule. As currently planned, field work will be initiated within two weeks of written receipt of final work plan approval. Field activity duration for the Remedial Investigation activities is estimated to be ten weeks assuming no delays are experienced due to inclement weather, site access problems, or for other unforeseen reason.

The scheduled submittal dates for deliverables are based on standard laboratory turnaround times of four weeks, and turnaround for data validation of three weeks.

Project Milestone	Date
Issue Work Assignment (WA)	May 14, 2007
Conflict of Interest Clearance	May 25, 2007
Submit Draft Project Scoping Plan with preliminary LOE and Cost	June 22, 2007
Submit Draft RI/FS Work Plan including HASP	June 29, 2007
Submit Final RI/FS Work Plan (Deliverable)	7 days after approval of Draft Work Plan
Notice to Proceed (NTP)	July 31, 2007
Commence Task 2 RI Field Work	August 2007
Task 2 Initial Field Work Completed	September 30, 2007
Task 3 Submit Draft RI Report	December 30, 2007
Approve Draft RI Report	30 Days after Draft Report Submitted
Task 3 Submit Final Report	30 Days after Approval of Draft Report
Task 4 Submit Draft Feasibility Study	February 2008
Approve Draft FS Report	30 Days after Draft Report Submitted
Task 4 Submit Final Feasibility Study Report	30 Days after Approval of Draft Report
Task 5 - Interim Remedial Measures	To be determined